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E I DU PONT DE NEMOURS AND COMPANY LEGAL PATENT RECORDS CENTER BARLEY MILL PLAZA 25/1128 4417 LANCASTER PIKE WILMINGTON, DE 19805			SALVATORE, LYNDIA	
			ART UNIT	PAPER NUMBER
			1771	
DATE MAILED: 03/12/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/691,273

Applicant(s)

MARIN ET AL.

Examiner

Lynda M Salvatore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 21-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 21-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination

1. Applicant's request for continuing examination (RCE) including remarks, inventor declarations and amendments filed 12/15/03 have been fully considered and entered. Claim 20 has been canceled and claims 25 and 26 have been amended as requested to reflect proper dependency. Applicant's cancellation of claim 20 renders moot claims 20, 25, and 26 rejected under 35 U.S.C. 102 (b) as being anticipated by Steuber, US 3,169,899. Thus, said rejection is withdrawn. Applicant's arguments regarding the rejection of claims 29 and 30 rejected under 35 U.S.C. 102 (b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over or Shin et al., US 5147568 are found persuasive. As such, this rejection is withdrawn. Specifically, claims 29 and 30 are directed to a non-woven. Applicant's submitted inventor declarations and accompanying arguments are not found persuasive to patentably distinguish the instant claims over the prior art of record for reasons set forth herein below.

Response to Arguments

Claim Rejections - 35 USC § 112

2 As previously set forth in the Final Office Action (section 3), claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Additionally, claims 24-27 are also rejected. Independent claims 1, 5 and 6 recite physical properties of a polyethylene plexifilamentary strand and non-woven made therefrom (i.e., surface area, crush value, Frazier Permeability, hydrostatic head and Gurley Hill Porosity). Ex parte Slob, 157 USPQ 172, states the following with regard to an article claimed by defining property values:

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Claims merely setting forth physical characteristics desired in article, and not setting forth specific compositions which would meet such characteristics, are invalid as vague, indefinite, and functional since they cover any conceivable combination of ingredients either presently existing or which might be discovered in future and which would impart desired characteristics, thus, expression “a liquefiable substance having a liquefaction temperature from 400°C. to about 300°C. and being compatible with the ingredients in the powdered detergent composition” is too broad and indefinite since it purports to cover everything which will perform the desired functions regardless of its composition, and in effect, recites compositions by what it is desired that they do rather than what they are; expression also is too broad since it appears to read upon materials that could not possibly be used to accomplish purposes intended.

Applicant argues that Examiner's reliance on case law to establish a *prima facie* case for rejection is in error. In response, the Examiner respectfully points out that said claims are rejected under 35 U.S.C 112, second paragraph, not 35 U.S.C. 103. Ex parte Slob, 157 USPQ 172 is cited merely in support of the 112, second paragraph rejection, not in support of an obvious type rejection. Thus, the Examiner asserts that Applicant's *prima facie* argument is misplaced. With regard to the indefiniteness of said claims, the Examiner maintains that the recitation of physical properties of a known article does not constitute “defined subject matter”. Applicants submit a brief excerpt of the Board of Appeals decision in copending application, 08/914,409 in response to what Applicant considers a “per se” rejection by the Examiner over Ex parte Slob. The Examiner can only assume that Applicants submitted this excerpt as evidence that said claims are not indefinite under 35 U.S.C. 112, second paragraph, because the underlying facts sufficiently provide the claims with definiteness. However, it is the position of the Examiner that the underlying facts are not found sufficient to render the claims definite and the excerpt submitted by Applicants does not support withdrawing the 112, second paragraph rejection. The Examiner has reviewed the full text of the decision wherein the Board did maintain the 35 U.S.C 112, second paragraph rejection over Ex Parte Slob.

Thus, it is asserted that the 112, 2nd paragraph rejection over Ex Parte Slob is proper as the claims lack the necessary structural, chemical and/or method limitations which would

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provide said plexifilamentary properties (i.e., surface area, crush value, Frazier Permeability, hydrostatic head and Gurley Hill Porosity).

Applicant further argues that the specification contains a complete description of how to make the claimed flash spun fibers and sheets, and submit that claims should not be read “in a vacuum”, but should be evaluated based upon the disclosure in the specification. In response, to Applicant’s argument that the disclosure contains a complete description of how to make the claimed flash spun fibers, the Examiner agrees. However, the following excerpt from the recent Board of Appeals decision is especially relevant to Applicant’s argument.

“When, as here, an applicant attempts to obtain patent protection on non-existent materials that may be made some day in the future, but only provides guidance on how to make specifically disclosed material, the breadth of the claim renders it susceptible to a rejection under 35 U.S.C 112, *first* and second paragraphs”. (Appeal no. 2002-1003, decision dated 31 October 2002, page 6).

Notwithstanding, the recent Board decision, the Examiner asserts that it is improper to import limitations from the specification into the claims. Moreover, in the instant case, it is impossible for the Examiner to read limitations in light of the specification that are not recited in the claims. The Examiner asserts that said claims are indefinite based on the fact that Applicant is claiming a known article by having a set of desirable properties, rather than the structural, chemical, and/or method limitations that provide for said properties. The invention does not lie in the desired plexifilamentary properties, but how to achieve said properties.

Claims merely setting forth desired physical properties rather than the limitations that provide for said properties are dynamic in scope, in that they encompass future material and/or methods of achieving said properties. As a result of such dynamic type claims, conceivably any plexifilamentary having recited set of plexifilamentary properties would infringe on the instant

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claims. Applicant seeks patent protection for all future plexifilamentary fibers and non-woven fabrics made therefrom having a single desirable physical property or combination of properties, but does not want to be limited by the patentably distinguishable features which provides said properties. If Applicant maintains that the instant claims are patentably distinguishable over the prior art because of the claimed plexifilamentary properties, then what are the structural, chemical and/or method limitations, which provide for said properties? Without such limitations, claims 1-18 are indefinite for reciting only the desired physical properties of the plexifilamentary fibers and the non-woven thereof, rather than setting forth structural and/or chemical limitations, which would provide said plexifilamentary properties. Stated another way, the claims are indefinite for only claiming the end results Applicant achieved instead the contribution to the art that achieved the goals. Claims 21-27 are further rejected for their dependency on claims 5 and 7.

Additionally, with regard to Applicant's arguments regarding inherency, it is the position of the Examiner that said argument is irrelevant, as the inherency of the recited properties was not the basis of the indefinite rejection. With regard to the argument regarding denial of a claim based on the type of language used, the Examiner respectfully points out the claims were not rejected as indefinite because of Applicant's functional language. This argument is also irrelevant with respect to the indefinite rejection.

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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4. Claims 1-18 and 24-27 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for flash-spun sheet material made of polyethylene and one of two solvents (i.e., n-pentane or FR-EONY-I 1), does not reasonably provide enablement for the presently claimed flash-spun sheet material having the recited hydrostatic head pressure, Gurley Hill porosity, and MVTR-LYSSY. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. As noted by the Board of Patent Appeals in the decision of October 31, 2002, the specification does not provide enablement for one of ordinary skill in the art that is reasonably commensurate in scope with the degree of protection sought by the present claims. (See above Board Decision)

Claim Rejections - 35 USC § 102

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 5,26, and 27 stand rejected under 35 U.S.C. 102 (b) as being anticipated by Lim et al., US 5,290,628 for reasons of record.

Applicant argues that Lim '628., teaches a composite sheet, whereas as Applicant recites a non-woven unitary fibrous sheet and submits an inventor declaration, in which Dr. Lim declares that the hydraulically needled sheets provided by the cited patent have two distinctly different sides. Applicant further argues the Frazier permeability limitation would not be met with the starting unitary sheet taught by Lim '628. These arguments are not found persuasive on the grounds that the Applicants open claim language of comprising does not preclude the Lim et al., reference from being relied upon. Specifically, Lim '628., teaches using a lightly

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consolidated or unconsolidated flash-spun plexi-filamentary film-fibril web *followed with hydraulically needling of staple fibers*, which provide for said Frazier Permeability limitations (Column 3, 40-45). Thus, it is the position of the Examiner that Lim '628., does teach a non-woven unitary fibrous sheet comprised of plexifilamentary fiber strands and further consolidating renders the sheet comprising the staple fibers "unitary".

Claim Rejections - 35 USC § 102/103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 1-18 stand rejected under 35 U.S.C. 102 (b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over or Steuber, US 3,169,899.

The Examiner respectfully points out that *In re Spada* was not relied upon in this particular rejection. The Applicant argues that Steuber does not teach plexifilamentary strands having the combination of Frazier Permeability, hydrostatic head, surface area, crush, and Gurley Hill Porosity values as recited. Regarding the lack of teaching to these properties singularly or in combination, the Examiner asserts that this is basis of an inherency argument. The reference does not have to teach said desired physical properties, but rather the chemical and structural features of the claimed article. As such, it is the position of the Examiner that since Steuber meets chemical and structural criteria with a fibrous non-woven sheet consisting of plexifilament material produced from polyhydrocarbons such as polyethylene or polypropylene, said physical properties must be inherent. Support for said presumption is found in the use of like materials (i.e., polyhydrocarbons) and the use of like processes (i.e., spinning synthetic polymers for the production of plexifilaments), which would result in the claimed combination of surface area and

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crush value properties property. The burden of proof is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 495

In addition, the presently claimed combination of Frazier Permeability, hydrostatic head, surface area, crush, and Gurley Hill Porosity values would obviously have been present once the Lim et al., product is provided. *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977).

Though Applicants cite exemplary data evidencing the combination Frazier Permeability, hydrostatic head, surface area, crush, and Gurley Hill Porosity values, no objective evidence is provided to establish that the combination of Frazier Permeability, hydrostatic head, surface area, crush, and Gurley Hill Porosity values are not inherent to Steuber. Without such evidence or teachings to the patently distinct chemical or structural differences, the burden is shifted to Applicant to prove a lack of inherency.

9. Alternatively, claims 1-18 stand rejected under 35 U.S.C. 102 (b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Blades US 3,081,519 for reasons of record.

With regard to the Blades reference, the Examiner maintains the same arguments as presented above with regard to Steuber. To reiterate, the patent issued to Blades discloses a novel process for producing plexi-filaments. Blades teaches that the strands may be knit or woven into fabrics of high strength or they may be beaten or chopped to produce fibrils. The polymers used to produce the plexifilament strands are preferably crystalline polyhydrocarbons (e.g., polyethylene, polypropylene).

Although, Blades lack an explicit teaching with regard to the crush value limitations set forth in claims 1 and 4, and a non-woven having the desired combination of Frazier

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Permeability, hydrostatic head, and Gurley Hill Porosity values as recited in claims 5-19, it is reasonable to presume that said property values are inherent to the invention of Blades. Support for said presumption is found in the use of like materials (i.e., polyhydrocarbons) and the use of like processes (i.e., spinning synthetic polymers for the production of plexifilaments), which would result in the claimed property. The burden of proof is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 495

In addition, the presently claimed Frazier Permeability, hydrostatic head, Gurley Hill Porosity, and crush values would obviously have been present once the Blades product is provided. *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977)

Though Applicants cite exemplary data evidencing the combination Frazier Permeability, hydrostatic head, surface area, crush, and Gurley Hill Porosity values, no objective evidence is provided to establish that the combination of Frazier Permeability, hydrostatic head, surface area, crush, and Gurley Hill Porosity values are not inherent to Blades. Without such evidence or teachings to the patently distinct chemical or structural differences, the burden is shifted to Applicant to prove a lack of inherency.

10. Claims 6-18 and 24-27 stand rejected under 102 (b) as being anticipated or in the alternative, under 35 U.S.C. 103(a) as obvious over Lim '628., as applied to claim 5 above for reasons of record.

With regard to claim 5, Applicant maintains that the hydraulic needling of the staple fiber sheet into a plexifilimentary sheet as disclosed in the reference would result in a composite fabric having distinct layers of a staple fiber sheet and a plexifilamentary fiber sheet, not a "unitary fibrous sheet" as claimed. However, arguments of counsel cannot take the place of factually

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supported objective evidence. *In re De Blauwe*, 736 F. 2d 699, 705. Thus, as set forth above, the Examiner maintains that Lim et al., '628 meets the limitations of claim 5.

With regard to claims 6-18 and 24-27, Lim '628., discloses a Frazier porosity value of at least $4\text{ft}^3/\text{ft}^2/\text{min}$ (preferably in the $10\text{-}40\text{ ft}^3/\text{ft}^2/\text{min}$ range) as recited in claims 13-19 (Column 4, lines 56-60 and Column 5, lines 9-13). Additionally, the spun-laced non-woven fabrics are particularly useful in filtration applications (e.g., vacuum cleaner bags), and if thermally bonded as garments, pillows and comforters (Abstract).

Although, Lim '628., fails to disclose a non-woven having the desired combination of Frazier Permeability, hydrostatic head, and Gurley Hill Porosity values it is reasonable to presume that said property values are inherent to the invention of Lim et al. Support for said presumption is found in the use of like materials (i.e., polyethylene) and the use of like processes (flash-spun plexifilamentary filaments), which would result in the claimed property. The burden is upon the Applicant to prove otherwise *In re Fitzgerald* 205 USPQ 495

In addition, the presently claimed property values of Frazier Permeability, hydrostatic head, and Gurley Hill Porosity would obviously have been present once the Lim '628., products are provided. *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977)

11. Claim 28 stands rejected under 35 U.S.C. 102 (b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over or Shin et al., US 5147568 for reasons of record.

Applicant asserts that the Examiner merely opines that Shin et al., inherently meets the desired physical properties. Recall, Shin et al., discloses flash spinning fibers from a hydrocarbon/co-solvent spin mixture. It is the position of the Examiner that Shin et al., reference sufficiently provides evidence to support the inherency arguments. It is a fact that the patent

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issued to Shin et al., teaches an improved process for *flash-spinning plexifilamentary film-fibril strands* (Abstract). It is also fact, rather than opinion, that the process disclosed by Shin et al., includes the *claimed* method limitations of spinning the *claimed* polyethylene in the *claimed* percent weight range of 8 to 35, which has been dissolved into the *claimed* spin agent comprising a hydrocarbon/co-solvent mixture at the *claimed* temperature ranges of from 130° C to 300° C. (Column 2, 55-65). Suitable hydrocarbons also include the *claimed* pentane and suitable co-solvents include cyclopentane (Column 3, 15-51). It is the Shin Declaration that opines that the desired combination of crush value, surface area, Frazier Permeability, hydrostatic head, and Gurley Hill Porosity values are not inherent to the article of Shin et al. The Applicant has not provided objective evidence to support the opinion of Dr. Shin that the combination of Frazier Permeability, hydrostatic head, surface area, crush, and Gurley Hill Porosity values are not inherent to Shin et al.

Thus, with regard to the physical property limitations, although the prior art does not explicitly the desired combination of crush value, surface area, Frazier Permeability, hydrostatic head, and Gurley Hill Porosity values it is reasonable to presume that said property values are inherent to the plexifilamentary film-fibrils of Shin et al. Support for said presumption is found in the use of like materials (i.e., polyethylene/pentane/cyclopentane) and the use of like processes (flash-spun plexifilamentary filaments at a temperature ranging from 130° C to 300° C), which would result in the claimed property. The burden is upon the Applicant to prove otherwise *In re Fitzgerald* 205 USPQ 495

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In addition, the presently claimed property values of crush value, surface area, Frazier Permeability, hydrostatic head, and Gurley Hill Porosity would obviously have been present once the Shin et al., product is provided. *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977)

Claim Rejections - 35 USC § 102/103

12. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

13. Claim 6 is rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lim et al., US 6,034,008.

The patent issued to Lim '008., teaches a unitary non-woven sheet comprising flash-spun plexi-filamentary fibers of high-density polyethylene (Column 2, lines 30-36). Various physical properties such as hydrostatic head and Gurley Hill Porosity are shown in tables 4, 5, and 6. Lim et al., discloses in example 27 a hydrostatic head of 117 and Gurley Hill Porosity of 5 seconds in example 30.

Applicant argues the Examiner's reliance on *In re Spada* in Final Office Action is misplaced. This argument is found persuasive. However, it is the position of the Examiner that though Lim '008., does not teach the desired combination of hydrostatic head and Gurley Hill Porosity properties in the claimed combination, these properties can be obtained. Applicant's submitted inventor declaration is not found persuasive since only the opinion of Dr. Lim is given rather than objective factual evidence such as physical data and/or comparative examples to support the argument that none of the sheets taught in Lim '008 had combinations of hydrostatic head and Gurley Hill Porosity. Thus, it is the position of the Examiner that since the Lim et al.,

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article meets the chemical and structural limitations of the instantly claimed invention said combination of hydrostatic head and Gurley Hill Porosity properties are inherent to the Lim '008., article. Support for said presumption is found in the use of like materials (i.e., polyhydrocarbons) and the use of like processes (i.e., spinning synthetic polymers for the production of plexi-filaments), which would result in the claimed combination of hydrostatic head and Gurley Hill Porosity properties. The burden of proof is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 495

In addition, the presently claimed combination of hydrostatic head and Gurley Hill Porosity properties would obviously have been present once the Lim '008., product is provided. *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977)

Claim Rejections - 35 USC § 103

14. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

15. Claims 1-18, 29 and 30 are rejected under 35 U.S.C. 103(a) as obvious over or Shin et al., US 5147568.

The patent issued to Shin et al., teaches an improved process for flash-spinning plexifilamentary film-fibril strands (Abstract). The process includes spinning polyethylene, which has been dissolved into a hydrocarbon/co-solvent mixture comprising from 8 to 35 percent weight of polyethylene at a temperature ranging from 130° C to 300° C (Column 2, 55-65). Suitable hydrocarbons include pentane and suitable co-solvents include cyclopentane (Column 3, 15-51).

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Shin et al., fails to explicitly teach forming a unitary non-woven sheet from said plexi-filamentary strands, however, it is well known in the art that plexifilamentary fibers may be used in the manufacture of non-woven sheets (See other references made of record). Moreover, since the fibers are generally only utilized when employed in some further construction, it would have been obvious to one of ordinary skill in the art at the time the invention was made to the use fiber of Shin et al., in conventional plexifilamentary non-woven constructions, motivated by the desire to make use of the particular characteristics of the disclosed filaments.

With regard to the physical property limitation of the formed non-woven, although the prior art does not explicitly disclose a non-woven having the desired combination of crush value, surface area, Frazier Permeability, hydrostatic head, and Gurley Hill Porosity values it is reasonable to presume that said property values are inherent to the plexifilamentary film-fibrils of Shin et al., and any subsequent non-woven formed therefrom. Support for said presumption is found in the use of like materials (i.e., polyethylene/pentane/cyclopentane) and the use of like processes (flash-spun plexi-filamentary filaments at a temperature ranging from 130° C to 300° C), which would result in the claimed property. The burden is upon the Applicant to prove otherwise *In re Fitzgerald* 205 USPQ 495

In addition, the presently claimed property values of crush value, surface area, Frazier Permeability, hydrostatic head, and Gurley Hill Porosity would obviously have been present once the Shin et al., product is provided. *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977)

16. Claim 21-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shin et al., US 5147568 as applied to claims 5 and 7 above, and further in view of Bisbis et al., US 5,919,539.

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To reiterate, Shin et al., fails to explicitly teach forming a unitary non-woven sheet from said plexi-filamentary strands, however, it is well known in the art that plexifilamentary fibers may be used in the manufacture of non-woven sheets (See other references made of record). Moreover, since the fibers are generally only utilized when employed in some further construction, it would have been obvious to one of ordinary skill in the art at the time the invention was made to the use fiber of Shin et al., in conventional plexifilamentary non-woven constructions, motivated by the desire to make use of the particular characteristics of the disclosed filaments. To that end, the patent issued to Bisbis et al., teaches bonding TYVEK® Style 1422A panels/sheets, which are made from flash-spun polyethylene plexi-filamentary fibers that have been thermally bonded (Examples 1-4). Bisbis et al., describes the TYVEK® Style 1422A as having a linen texture on one side and a ribbed texture on the opposite side. Therefore, motivated to provide a textured surface it would have been obvious to one having ordinary skill in the art at the time the invention was made to bond non-woven article of Shin et al., in the same manner as the TYVEK® Style 1422A of Bisbis et al.

a. With regard to intended use of a garment, filter media or pillow cover, it is the position of the Examiner that since the prior art meets the chemical and structural limitations there is nothing to evidence that the non-woven sheet of Shin et al., and Bisbis et al., could not function in the desired claimed capacities.

17. Claim 21-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steuber, US 3,169,899 as applied to claims 5 and 7 above, and further in view of Bisbis et al., US 5,919,539.

Steuber et al., fails to specifically teach point bonding or pattern (i.e., linen and ribbed), however, the patent issued to Bisbis et al., teaches bonding TYVEK® Style 1422A

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panels/sheets, which are made from flash-spun polyethylene plexi-filamentary fibers that have been thermally bonded (Examples 1-4). Bisbis et al., describes the TYVEK® Style 1422A as having a linen texture on one side and a ribbed texture on the opposite side. Therefore, motivated to provide a textured surface it would have been obvious to one having ordinary skill in the art at the time the invention was made to bond non-woven article of Steuber et al., in the same manner as the TYVEK® Style 1422A of Bisbis et al.

With regard to intended use of a garment, filter media or pillow cover, it is the position of the Examiner that since the prior art meets the chemical and structural limitations there is nothing to evidence that the non-woven sheet of Steuber and Bisbis et al., could not function in the desired claimed capacities.

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18. Claim 21-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blades US 3,081,519 as applied to claims 5 and 7 above, and further in view of Bisbis et al., US 5,919,539.

Blades et al., fails to specifically teach point bonding or pattern (i.e., linen and ribbed), however, the patent issued to Bisbis et al., teaches bonding TYVEK® Style 1422A panels/sheets, which are made from flash-spun polyethylene plexi-filamentary fibers that have been thermally bonded (Examples 1-4). Blades et al., describes the TYVEK® Style 1422A as having a linen texture on one side and a ribbed texture on the opposite side. Therefore, motivated to provide a textured surface it would have been obvious to one having ordinary skill in the art at the time the invention was made to bond non-woven article of Blades et al., in the same manner as the TYVEK® Style 1422A of Bisbis et al.

With regard to intended use of a garment, filter media or pillow cover, it is the position of the Examiner that since the prior art meets the chemical and structural limitations there is nothing to evidence that the non-woven sheet of Blades and Bisbis et al., could not function in the desired claimed capacities.

Conclusion

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M Salvatore whose telephone number is 571-272-1482. The examiner can normally be reached on M-F.

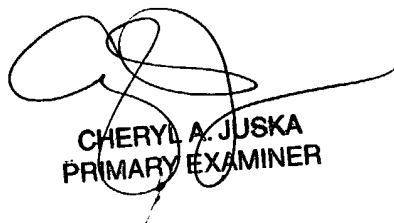
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1482. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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February 22, 2004

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CHERYL A. JUSKA
PRIMARY EXAMINER